



Air Pollution Control Program

MISSOURI
DEPARTMENT OF
NATURAL RESOURCES

INTERMEDIATE STATE PERMIT TO OPERATE

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to operate the air contaminant source(s) described below, in accordance with the laws, rules, and conditions set forth herein.

Intermediate Operating Permit Number: OP2017-098

Expiration Date: DEC 14 2022

Installation ID: 510-0808

Project Number: 2016-12-034

Installation Name and Address

Chemisphere Corporation
2101 Clifton Avenue
St. Louis, MO 63139
City of St. Louis

Installation Description:

Chemisphere Corporation is a chemical distribution facility that receives and ships chemicals for customers. The equipment at the installation includes various storage tanks, blending tanks, container filling operations, rail unloading racks, and truck loading/unloading racks.

The installation has the potential to be a major source for volatile organic compounds (VOCs) and hazardous air pollutants (HAPs). However, the installation, in their Intermediate Operating Permit application, is voluntarily limiting the plant wide emissions to less than 100 tons per year for VOCs, less than 10 tons per year for each HAP, and less than 25 tons per year for total HAPs, on a 12 month rolling average.

Prepared by:
Berhanu A. Getahun
Operating Permit Unit

Director or Designee
Department of Natural Resources

DEC 14 2017

Effective Date

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I. Installation Equipment Listing

EMISSION UNITS WITH LIMITATIONS

The following list provides a description of the equipment at this installation which emits air pollutants and identified as having unit-specific emission limitations.

Emission Unit #	Description of Emission Unit
F01	Fill Line F01
F02	Fill Line F02
F03	Fill Line F03
F04	Fill Line F04
F05	Fill Line F05
R44	39,000 Gallon Ethanol Storage Tank
R54	1,000 Gallon Mineral Spirits Storage Tank
R56	3,700 Gallon Petroleum Distillate Storage Tank
R57	3,700 Gallon Petroleum Distillate Storage Tank
R58	39,700 Gallon Ethanol Storage Tank
R59	30,000 Gallon Methanol Storage Tank
R60	30,000 Gallon Aromatic 100 Storage Tank
R61	30,000 Gallon Acetone Storage Tank
R62	30,000 Gallon Acetone Storage Tank
K08	4,600 Gallon Mixing Tank
K09	7,800 Gallon Mixing Tank
K15	6,000 Gallon Mixing Tank
K16	6,000 Gallon Mixing Tank
K17	5,500 Gallon Mixing Tank
K19	7,800 Gallon Mix Tank
K20	7,800 Gallon Mix Tank

EMISSION UNITS WITHOUT LIMITATIONS

The following list provides a description of the equipment, which does not have unit specific limitations at the time of permit issuance.

Emission Unit #	Description of Emission Unit
F06	Fill Line F06
F07	Fill Line F07
H1	Paved Haul Road
K04	Above Ground Vertical Mix Tank – Stainless Steel Interior, 1,400 Gallon
K05	Above Ground Vertical Mix Tank – Stainless Steel Interior, 660 Gallon
K06	Above Ground Vertical Mix Tank – Stainless Steel Interior, 660 Gallon
K07	Above Ground Vertical Mix Tank – Stainless Steel Interior, 55 Gallon
K12	Above Ground Vertical Mix Tank – Stainless Steel Interior, 1,900 Gallon
K14	1,000 Gallon Mix Tank
K21	600 Gallon Mix Tank – for Ethyl Acetate and Methanol
K22	300 Gallon Mobile Ethyl Acetate Mixing Tank
K23	1,850 Gallon Mix Tank
K24	1,000 Gallon Mix Tank
K25	1,000 Gallon Mix Tank
L1	Loading Rack with Six (6) pumps – All Chemicals
L2	Loading Rack for Tanks R44 & R58
L3	Loading Rack – Rail to Tank Trucks
R01 through R08	Eight (8) Above Ground, Vertical Fixed Roof Storage Tanks 20,000 Gallon Capacity (each)
R11 & R12	Two (2) Above Ground, Vertical Fixed Roof Storage Tanks 30,000 Gallon Capacity (each)
R15 through R22	Eight (8) Above Ground, Vertical Fixed Roof Storage Tanks 10,000 Gallon Capacity (each)
R28 & R29	Two (2) Above Ground Horizontal Storage Tanks 1,000 Gallon Capacity (each)
R40	Above Ground Vertical Fixed Roof Storage Tank, 6,000 Gallon Capacity
R41 & R42	Two (2) Above Ground, Vertical Fixed Roof Storage Tanks 4,000 Gallon Capacity (each)
R45 & R46	Two (2) Above Ground, Vertical Fixed Roof Storage Tanks 6,000 Gallon water tanks
R47	Water Storage Tank – 5,000 Gallon Capacity
R53	One (1) Above ground, Vertical Fixed Roof Storage Tank 2,574 gallon hydrochloric acid tank
R63 through R65	Three (3) Above Ground, Vertical Fixed Roof Storage Tanks 17,000 Gallon Capacity (each)

Emission Unit #	Description of Emission Unit
R66	One (1) Above Ground, Vertical Fixed Roof Storage Tank 1,500 gallon caustic soda rayon grade tank
R67 through R70	Four (4) Above Ground, Vertical Fixed Roof Storage Tanks 30,000 Gallon Capacity (each) acetone tanks
R71	One (1) Above Ground, Vertical Fixed Roof Storage Tank 10,000 gallon capacity methyl acetate tank
R72	One (1) Above Ground, Vertical Fixed Roof Storage Tank 35,000 gallon capacity acetone tank
R73 & R74	Two (2) Above Ground, Vertical Fixed Roof Storage Tanks 35,000 Gallon Capacity (each) ethanol tanks
R75	One (1) Above Ground, Vertical Fixed Roof Storage Tank 35,000 gallon capacity acetone tank
R76	One (1) Above Ground, Vertical Fixed Roof Storage Tanks 35,000 Gallon Capacity Calumet 195-208 (CAS# 68410-97-9 & 110-82-7) tank
R77	One (1) Above Ground, Vertical Fixed Roof Storage Tanks 35,000 Gallon Capacity Methanol tank
R78	One (1) Above Ground, Vertical Fixed Roof Storage Tanks 6,000 Gallon Capacity water storage tank

II. Plant Wide Emission Limitations

The installation shall comply with each of the following emission limitations. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect on the date of permit issuance. The plant wide conditions apply to all emission units at this installation. All emission units are listed in Section I under Emission Units with Limitations and Emission Units without Limitations.

Permit Condition PW001

10 CSR 10-6.065 Operating Permits

10 CSR 10-6.020(2)(I)23. and 10 CSR 10-6.065(5)(C)2. Voluntary Limitation(s)

Emission Limitation:

The Permittee shall emit into the atmosphere less than 100 tons of Volatile Organic Compounds (VOCs) from the entire installation in any consecutive 12-month period.

Monitoring/Recordkeeping:

The permittee shall maintain an accurate record of emissions of VOCs emitted into the atmosphere from this installation. The permittee shall record the monthly and running 12-month totals of the VOC emissions from this installation. Example form is attached as Attachment A (Plant-Wide Emissions Tracking Record). The permittee may use this form, or forms of its own, so long as the forms used will accurately demonstrate compliance with the VOC emission limitation (less than 100 tons in any consecutive 12-month period of VOCs).

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program, Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, or AirComplianceReporting@dnr.mo.gov, no later than ten (10) days after records show that emissions limitations established in this permit condition were exceeded.
- 2) Reports of any deviations from monitoring, record keeping and reporting requirements of this permit condition shall be submitted annually in the annual compliance certification and monitoring report, as required by Section V of this permit.

Permit Condition PW002

10 CSR 10-6.065 Operating Permits

10 CSR 10-6.020(2)(I)23. and 10 CSR 10-6.065(5)(C)2. Voluntary Limitation(s)

Emission Limitation:

- 1) The permittee shall emit less than 10 tons of any individual HAP in any consecutive 12-month period; and
- 2) The permittee shall emit less than 25 tons of any combination of HAPs in any consecutive 12-month period.

Monitoring/Recordkeeping:

The permittee shall maintain an accurate record of emissions of HAPs emitted into the atmosphere from this installation. Example forms are attached as Attachment B and C. The permittee may use these forms, or forms of its own, so long as the forms used will accurately demonstrate compliance with the HAPs emission limitation (less than 10 tons in any consecutive 12-month period of any individual HAP or less than 25 tons in any consecutive 12-month period of any combination of HAPs).

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program, Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, AirComplianceReporting@dnr.mo.gov, no later than ten (10) days after records show that emissions limitations established in this permit condition were exceeded.
- 2) Reports of any deviations from monitoring, record keeping and reporting requirements of this permit condition shall be submitted annually in the annual compliance certification and monitoring report, as required by Section V of this permit.

III. Emission Unit Specific Emission Limitations

The installation shall comply with each of the following emission limitations. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect on the date of permit issuance.

F01, F02 and F03 – Filling Lines K15, K16 and K17 – Mixing Tanks	
Emission Unit	Description
F01	Fill Line F01
F02	Fill Line F02
F03	Fill Line F03
K15	6,000 Gallon Mixing Tank - Above Ground Vertical, Stainless Steel Interior
K16	6,000 Gallon Mixing Tank - Above Ground Vertical, Stainless Steel Interior
K17	5,500 Gallon Mixing Tank - Above Ground Vertical, Stainless Steel Jacketed Interior

**Permit Condition (F01, F02 and F03)-001 and
 Permit Condition (K15, K16 and K17)-001**

**10 CSR 10-6.060 Construction Permits Required
 St. Louis City ACP Construction Permit No. 07-12-030**

Emission Limitation:

- 1) The permittee shall limit the total VOC emissions from mixing tanks K15, K16 and K17, and the three fill lines F01, F02 and F03 to less than or equal to 27.08 tons in any consecutive twelve (12)-month period.
- 2) The permittee shall limit the total HAPs emissions from mixing tanks K15, K16 and K17, and the three fill lines F01, F02 and F03 to less than or equal to 4.24 tons in any consecutive twelve (12)-month period.

Operational Limitation/Equipment Specification:

Tanks containing VOC used for cleaning equipment shall remain covered except when operator access is required.

Monitoring/Recordkeeping:

The permittee shall calculate and record the following for mixing tanks K15, K16 and K17, and the three fill lines F01, F02 and F03.

- 1) Monthly totals for VOC, individual HAPs and total HAPs emissions.
- 2) A consecutive 12-month total for VOC, individual HAPs and total HAPs emissions.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program, Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, or AirComplianceReporting@dnr.mo.gov, no later than ten (10) days after records show that emissions limitations established in this permit condition were exceeded.

- 2) Reports of any deviations from monitoring, record keeping and reporting requirements of this permit condition shall be submitted annually in the annual compliance certification and monitoring report, as required by Section V of this permit.

R44, R54 and R56 through R62 – Vertical Fixed Roof Storage Tanks		
Emission Unit	Description	Manufacturer/Model #
R44	39,000 Gallon Ethanol Storage Tank – Aboveground, White. Constructed 1992.	WEMAC/UL
R54	1,000 Mineral Spirits Storage Tank – Aboveground, White. Constructed 1992.	
R56	3,800 Petroleum Distillate Storage Tank – Aboveground, White. Constructed 1994.	Not Available
R57	3,800 Petroleum Distillate Storage Tank – Aboveground, White. Constructed 1994	
R58	39,700 Gallon Ethanol Storage Tank – Aboveground, White. Constructed 1994.	WEMAC/UL
R59	30,000 Gallon Methanol Storage Tank – Aboveground, White. Constructed 1995.	
R60	30,000 Gallon Aromatic 100 Storage Tank – Aboveground, White. Constructed 1994.	
R61	30,000 Gallon Acetone Storage Tank – Aboveground, White. Constructed 1997.	
R62	30,000 Gallon Acetone Storage Tank – Aboveground, White. Constructed 1997.	

Permit Condition (R44, R54 and R56 through R60)-001
10 CSR 10-6.060 Construction Permits Required
St. Louis City APCP Construction Permit No. 95-05-061
St. Louis City APCP Construction Permit No. 97-02-014, Amendment to Permit No. 95-05-061¹

Emission Limitation:

The permittee shall comply with the following product throughput listed in the table below:

Emission Unit (Tank Identification)	Content	Maximum Throughput Gallons per 12-Months
R44	Ethanol	2,400,000
R54	Mineral Sprits	24,000
R56	Petroleum Distillate	50,000
R57	Petroleum Distillate	50,000
R58	Ethanol	2,400,000
R59	Miscellaneous VOCs	1,500,000
R60	Xylene	1,500,000

¹ Tank R58 was permitted under Permit No. 95-05-061 to store petroleum distillate mineral oil. The amendment was to change the content of the tank to ethanol.

Monitoring/Record Keeping:

The permittee shall keep up-to-date records of the throughput of VOC containing liquids. These records shall be kept as a month to month moving average indicating usage during the previous 12 months.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program, Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, or AirComplianceReporting@dnr.mo.gov, no later than ten (10) days after records show that emissions limitations established in this permit condition were exceeded.
- 2) Reports of any deviations from monitoring, record keeping and reporting requirements of this permit condition shall be submitted annually in the annual compliance certification and monitoring report, as required by Section V of this permit.

Permit Condition (R61 and R62)-001

**10 CSR 10-6.060 Construction Permits Required
St. Louis City APCP Construction Permit No. 97-08-086**

Emission Limitation:

The permittee shall limit the chemical throughput to less than or equal to 2,000,000 gallons per 12-month period per tank.

Operational Limitation/Equipment Specification:

The permittee shall operate and maintain all equipment according to the manufacture's specifications.

Monitoring/Record Keeping:

The permittee shall keep up-to-date records of the throughput of VOC containing liquids. These records shall be kept as a month to month moving average indicating usage during the previous 12 months.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program, Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, or AirComplianceReporting@dnr.mo.gov, no later than ten (10) days after records show that emissions limitations established in this permit condition were exceeded.
- 2) Reports of any deviations from monitoring, record keeping and reporting requirements of this permit condition shall be submitted annually in the annual compliance certification and monitoring report, as required by Section V of this permit.

K08 and K09 – Mixing Tanks		
Emission Unit	Description	Manufacturer/ Model #
K08	4,600 Gallon Mixing Tank - Above Ground Vertical, Stainless Steel Interior, Constructed 1993	Kirk & Blym
K09	7,600 Gallon Mixing Tank - Above Ground Vertical, Stainless Steel Interior, Constructed 1994	Clawson/ UL

Permit Condition (K08 and K09)-001

10 CSR 10-6.060 Construction Permits Required
St. Louis City ACP Construction Permit No. 95-05-061

Emission Limitation:

The permittee shall comply with the following product throughput listed in the table below:

Emission Unit (Tank Identification)	Content	Maximum Throughput Gallons per 12-Months
K08	Miscellaneous VOCs	1,000,000
K09	Miscellaneous VOCs	1,500,000

Monitoring/Record Keeping:

The permittee shall keep up-to-date records of the throughput of VOC containing liquids. These records shall be kept as a month to month moving average indicating usage during the previous 12 months.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program, Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, or AirComplianceReporting@dnr.mo.gov, no later than ten (10) days after records show that emissions limitations established in this permit condition were exceeded.
- 2) Reports of any deviations from monitoring, record keeping and reporting requirements of this permit condition shall be submitted annually in the annual compliance certification and monitoring report, as required by Section V of this permit.

F04 and F05 – Filling Lines K19 and K20 – Mix Tanks	
Emission Unit	Description
F04	Fill Line F04 - Lance Filling Process
F05	Fill Line F05 - Lance Filling Process
K19	7,800 Gallon Mix Tank - Above Ground
K20	7,800 Gallon Mix Tank - Above Ground

**Permit Condition (F04 and F05)-001 and
Permit Condition (K19 and K20)-001**

**10 CSR 10-6.060 Construction Permits Required
St. Louis City ACP Construction Permit No. 10-08-016**

Emission Limitation:

- 1) The permittee shall not exceed two (2) tons of VOC emissions from Lance Filling Units F04 and F05 and Mix Tanks K19 and K20 combined in any consecutive 12-month period.
- 2) The permittee shall not exceed two (2) tons of total HAP emissions from Lance Filling Units F04 and F05 and Mix Tanks K19 and K20 combined in any consecutive 12-month period.

Operational Limitation/Equipment Specification:

Tanks containing VOC used for cleaning equipment shall remain covered except when operator access is required.

Monitoring/Record Keeping:

- 1) The permittee shall keep monthly records of VOC and HAP emissions from Lance Filling Units F04 and F05 and Mix Tanks K19 and K20 including a calculated total for any consecutive 12-month period.
- 2) The permittee shall keep Safety Data Sheets (SDS) on-site for all materials that will be used in Lance Fill Units F04 and F05 and Mix Tanks K19 and K20.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program, Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, or AirComplianceReporting@dnr.mo.gov, no later than ten (10) days after records show that emissions limitations established in this permit condition were exceeded.
- 2) Reports of any deviations from monitoring, record keeping and reporting requirements of this permit condition shall be submitted annually in the annual compliance certification and monitoring report, as required by Section V of this permit.

IV. Core Permit Requirements

The installation shall comply with each of the following requirements. Consult the appropriate sections in the Code of Federal Regulations (CFR), Code of State Regulations (CSR), and local ordinances for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect on the date of permit issuance. The following are only excerpts from the regulation or code, and are provided for summary purposes only.

City of St. Louis Ordinance 68657, §16 Open Burning Restrictions

- 1) No person shall cause, suffer, allow or permit the open burning of refuse.
- 2) No person shall conduct, cause or permit the conduct of a salvage operation by open burning.
- 3) No person shall conduct, cause or permit the disposal of trade waste by open burning.
- 4) No person shall cause or permit the open burning of leaves, trees or the byproducts therefrom, grass, or other vegetation.
- 5) It shall be prima-facie evidence that the person who owns or controls property on which open burning occurs, has caused or permitted said open burning.

10 CSR 10-6.050 Start-up, Shutdown and Malfunction Conditions

- 1) In the event of a malfunction, which results in excess emissions that exceed one hour, the permittee shall submit to the director within two business days, in writing, the following information:
 - a) Name and location of installation;
 - b) Name and telephone number of person responsible for the installation;
 - c) Name of the person who first discovered the malfunction and precise time and date that the malfunction was discovered.
 - d) Identity of the equipment causing the excess emissions;
 - e) Time and duration of the period of excess emissions;
 - f) Cause of the excess emissions;
 - g) Air pollutants involved;
 - h) Estimate of the magnitude of the excess emissions expressed in the units of the applicable requirement and the operating data and calculations used in estimating the magnitude;
 - i) Measures taken to mitigate the extent and duration of the excess emissions; and
 - j) Measures taken to remedy the situation that caused the excess emissions and the measures taken or planned to prevent the recurrence of these situations.
- 2) The permittee shall submit the paragraph 1 information to the director in writing at least ten days prior to any maintenance, start-up or shutdown activity which is expected to cause an excessive release of emissions that exceed one hour. If notice of the event cannot be given ten days prior to the planned occurrence, notice shall be given as soon as practicable prior to the activity.
- 3) Upon receipt of a notice of excess emissions issued by an agency holding a certificate of authority under section 643.140, RSMo, the permittee may provide information showing that the excess emissions were the consequence of a malfunction, start-up or shutdown. The information, at a minimum, should be the paragraph 1 list and shall be submitted not later than 15 days after receipt of the notice of excess emissions. Based upon information submitted by the permittee or any other pertinent information available, the director or the commission shall make a determination whether the excess emissions constitute a malfunction, start-up or shutdown and whether the nature, extent and duration of the excess emissions warrant enforcement action under section 643.080 or 643.151, RSMo.

- 4) Nothing in this rule shall be construed to limit the authority of the director or commission to take appropriate action, under sections 643.080, 643.090 and 643.151, RSMo to enforce the provisions of the Air Conservation Law and the corresponding rule.
- 5) Compliance with this rule does not automatically absolve the permittee of liability for the excess emissions reported.

10 CSR 10-6.060 Construction Permits Required

The permittee shall not commence construction, modification, or major modification of any installation subject to this rule, begin operation after that construction, modification, or major modification, or begin operation of any installation which has been shut down longer than five years without first obtaining a permit from the permitting authority.

10 CSR 10-6.065 Operating Permits

The permittee shall file a complete application for renewal of this operating permit at least six months before the date of permit expiration. In no event shall this time be greater than eighteen months. The permittee shall retain the most current operating permit issued to this installation on-site. The permittee shall immediately make such permit available to any Missouri Department of Natural Resources personnel upon request.

10 CSR 10-6.080 Emission Standards for Hazardous Air Pollutants and 40 CFR Part 61 Subpart M National Emission Standard for Asbestos

The permittee shall follow the procedures and requirements of 40 CFR Part 61, Subpart M for any activities occurring at this installation which would be subject to provisions for 40 CFR Part 61, Subpart M, National Emission Standard for Asbestos.

10 CSR 10-6.100 Alternate Emission Limits

Proposals for alternate emission limitations shall be submitted on Alternate Emission Limits Permit forms provided by the department. An installation owner or operator must obtain an Alternate Emission Limits Permit in accordance with 10 CSR 10-6.100 before alternate emission limits may become effective.

10 CSR 10-6.110 Reporting of Emission Data, Emission Fees and Process Information

- 1) The permittee shall submit a Full Emissions Report either electronically via MoEIS, which requires Form 1.0 signed by an authorized company representative, or on Emission Inventory Questionnaire (EIQ) paper forms on the frequency specified in this rule and in accordance with the requirements outlined in this rule. Alternate methods of reporting the emissions, such as spreadsheet file, can be submitted for approval by the director.
- 2) Public Availability of Emission Data and Process Information. Any information obtained pursuant to the rule(s) of the Missouri Air Conservation Commission that would not be entitled to confidential treatment under 10 CSR 10-6.210 shall be made available to any member of the public upon request.
- 3) The permittee shall submit a full EIQ for the 2017 and 2020 reporting years. In the interim years the installation may submit a Reduced Reporting Form; however, if the installation's emissions increase or decrease by more than five tons when compared to their last submitted full EIQ, the installation shall submit a full EIQ rather than a Reduced Reporting Form.
- 4) In addition to the EIQ submittal schedule outlined above, any permit issued under 10 CSR 10-6.060 section (5) or (6) triggers a requirement that a full EIQ be submitted in the first full calendar year after the permitted equipment initially operates.

10 CSR 10-6.130 Controlling Emissions During Episodes of High Air Pollution Potential

This rule specifies the conditions that establish an air pollution alert (yellow/orange/red/purple), or emergency (maroon) and the associated procedures and emission reduction objectives for dealing with each. The permittee shall submit an appropriate emergency plan if required by the Director.

10 CSR 10-6.150 Circumvention

The permittee shall not cause or permit the installation or use of any device or any other means which, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes an emission or air contaminant which violates a rule of the Missouri Air Conservation Commission.

10 CSR 10-6.165 Restriction of Emission of Odors

This is a State Only permit requirement.

No person may cause, permit or allow the emission of odorous matter in concentrations and frequencies or for durations that odor can be perceived when one volume of odorous air is diluted with seven volumes of odor-free air for two separate trials not less than 15 minutes apart within the period of one hour.

10 CSR 10-6.170 Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin

- 1) The permittee shall not cause or allow to occur any handling, transporting or storing of any material; construction, repair, cleaning or demolition of a building or its appurtenances; construction or use of a road, driveway or open area; or operation of a commercial or industrial installation without applying reasonable measures as may be required to prevent, or in a manner which allows or may allow, fugitive particulate matter emissions to go beyond the premises of origin in quantities that the particulate matter may be found on surfaces beyond the property line of origin. The nature or origin of the particulate matter shall be determined to a reasonable degree of certainty by a technique proven to be accurate and approved by the director.
- 2) The permittee shall not cause nor allow to occur any fugitive particulate matter emissions to remain visible in the ambient air beyond the property line of origin.
- 3) Should it be determined that noncompliance has occurred, the director may require reasonable control measures as may be necessary. These measures may include, but are not limited to, the following:
 - a) Revision of procedures involving construction, repair, cleaning and demolition of buildings and their appurtenances that produce particulate matter emissions;
 - b) Paving or frequent cleaning of roads, driveways and parking lots;
 - c) Application of dust-free surfaces;
 - d) Application of water; and
 - e) Planting and maintenance of vegetative ground cover.

10 CSR 10-6.180 Measurement of Emissions of Air Contaminants

- 1) The director may require any person responsible for the source of emission of air contaminants to make or have made tests to determine the quantity or nature, or both, of emission of air contaminants from the source. The director may specify testing methods to be used in accordance with good professional practice. The director may observe the testing. All tests shall be performed by qualified personnel.
- 2) The director may conduct tests of emissions of air contaminants from any source. Upon request of the director, the person responsible for the source to be tested shall provide necessary ports in stacks

or ducts and other safe and proper sampling and testing facilities, exclusive of instruments and sensing devices as may be necessary for proper determination of the emission of air contaminants.

- 3) The director shall be given a copy of the test results in writing and signed by the person responsible for the tests.

10 CSR 10-6.250 Asbestos Abatement Projects – Certification, Accreditation, and Business Exemption Requirements

This requirement is a State Only permit requirement.

The permittee shall conduct all asbestos abatement projects within the procedures established for certification and accreditation by 10 CSR 10-6.250. This rule requires individuals who work in asbestos abatement projects to be certified by the Missouri Department of Natural Resources Air Pollution Control Program. This rule requires training providers who offer training for asbestos abatement occupations to be accredited by the Missouri Department of Natural Resources Air Pollution Control Program. This rule requires persons who hold exemption status from certain requirements of this rule to allow the department to monitor training provided to employees.

10 CSR 10-6.280 Compliance Monitoring Usage

- 1) The permittee is not prohibited from using the following in addition to any specified compliance methods for the purpose of submission of compliance certificates:
 - a) Monitoring methods outlined in 40 CFR Part 64;
 - b) Monitoring method(s) approved for the permittee pursuant to 10 CSR 10-6.065, “Operating Permits”, and incorporated into an operating permit; and
 - c) Any other monitoring methods approved by the director.
- 2) Any credible evidence may be used for the purpose of establishing whether a permittee has violated or is in violation of any such plan or other applicable requirement. Information from the use of the following methods is presumptively credible evidence of whether a violation has occurred at an installation:
 - a) Monitoring methods outlined in 40 CFR Part 64;
 - b) A monitoring method approved for the permittee pursuant to 10 CSR 10-6.065, “Operating Permits”, and incorporated into an operating permit; and
 - c) Compliance test methods specified in the rule cited as the authority for the emission limitations.
- 3) The following testing, monitoring or information gathering methods are presumptively credible testing, monitoring, or information gathering methods:
 - a) Applicable monitoring or testing methods, cited in:
 - i) 10 CSR 10-6.030, “Sampling Methods for Air Pollution Sources”;
 - ii) 10 CSR 10-6.040, “Reference Methods”;
 - iii) 10 CSR 10-6.070, “New Source Performance Standards”;
 - iv) 10 CSR 10-6.080, “Emission Standards for Hazardous Air Pollutants”;
 - b) Other testing, monitoring, or information gathering methods, if approved by the director, that produce information comparable to that produced by any method listed above.

10 CSR 10-5.040 Use of Fuel in Hand-Fired Equipment Prohibited

No owner or operator shall operate applicable hand-fired fuel burning equipment unless the owner or operator meets the conditions set forth in 10 CSR 10-5.040. This regulation shall apply to all hand-fired fuel-burning equipment at commercial facilities including, but not limited to, furnaces, heating and cooking stoves and hot water furnaces. It shall not apply to wood-burning fireplaces and wood-burning stoves in dwellings, nor to fires used for recreational purpose, nor to fires used solely for the preparation of food by barbecuing or to other equipment exempted under 10 CSR 10-5.040. Hand-fired fuel-burning equipment is any stove, furnace, or other fuel-burning device in which fuel is manually introduced directly into the combustion chamber.

10 CSR 10-5.060 Refuse Not to be Burned in Fuel Burning Installations (Rescinded on February 11, 1979, Contained in State Implementation Plan)

No person shall burn or cause or permit the burning of refuse in any installation which is designed for the primary purpose of burning fuel.

40 CFR Part 82 Protection of Stratospheric Ozone (Title VI)

- 1) The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:
 - a) All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to 40 CFR §82.106.
 - b) The placement of the required warning statement must comply with the requirements of 40 CFR §82.108.
 - c) The form of the label bearing the required warning statement must comply with the requirements of 40 CFR §82.110.
 - d) No person may modify, remove, or interfere with the required warning statement except as described in 40 CFR §82.112.
- 2) The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners (MVACs) in Subpart B of 40 CFR Part 82:
 - a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices described in 40 CFR §82.156.
 - b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment described in 40 CFR §82.158.
 - c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR §82.161.
 - d) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with the record keeping requirements of 40 CFR §82.166. ("MVAC-like" appliance as defined at 40 CFR §82.152).
 - e) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to 40 CFR §82.156.
 - f) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR §82.166.
- 3) If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR part 82, Subpart A, Production and Consumption Controls.

- 4) If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements contained in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant.
- 5) The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR part 82, Subpart G, Significant New Alternatives Policy Program. *Federal Only - 40 CFR Part 82.*

V. General Permit Requirements

The installation shall comply with each of the following requirements. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued.

10 CSR 10-6.065, §(5)(C)1, §(6)(C)1.B, §(5)(E)2.C Permit Duration

This permit is issued for a term of five years, commencing on the date of issuance. This permit will expire at the end of this period unless renewed. If a timely and complete application for a permit renewal is submitted, but the Air Pollution Control Program fails to take final action to issue or deny the renewal permit before the end of the term of this permit, this permit shall not expire until the renewal permit is issued or denied.

10 CSR 10-6.065, §(5)(C)1 and §(6)(C)1.C General Record Keeping and Reporting Requirements

- 1) Record Keeping
 - a) All required monitoring data and support information shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report or application.
 - b) Copies of all current operating and construction permits issued to this installation shall be kept on-site for as long as the permits are in effect. Copies of these permits shall be made immediately available to any Missouri Department of Natural Resources' personnel upon request.
- 2) Reporting
 - a) All reports shall be submitted to the Air Pollution Control Program, Compliance and Enforcement Section, P. O. Box 176, Jefferson City, MO 65102, or AirComplianceReporting@dnr.mo.gov.
 - b) The permittee shall submit a report of all required monitoring by:
 - i) April 1st for monitoring which covers the January through December time period.
 - ii) Exception. Monitoring requirements which require reporting more frequently than annually shall report no later than 30 days after the end of the calendar quarter in which the measurements were taken.
 - c) Each report shall identify any deviations from emission limitations, monitoring, record keeping, reporting, or any other requirements of the permit.
 - d) Submit supplemental reports as required or as needed. All reports of deviations shall identify the cause or probable cause of the deviations and any corrective actions or preventative measures taken.
 - i) Notice of any deviation resulting from an emergency (or upset) condition as defined in paragraph (6)(C)7 of 10 CSR 10-6.065 (Emergency Provisions) shall be submitted to the permitting authority either verbally or in writing within two working days after the date on which the emission limitation is exceeded due to the emergency, if the permittee wishes to assert an affirmative defense. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that indicate an emergency occurred and the permittee can identify the cause(s) of the emergency. The permitted installation must show that it was operated properly at the time and that during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or requirements in the permit. The notice must contain a description of the emergency, the steps taken to mitigate emissions, and the corrective actions taken.

- ii) Any deviation that poses an imminent and substantial danger to public health, safety or the environment shall be reported as soon as practicable.
- iii) Any other deviations identified in the permit as requiring more frequent reporting than the permittee's annual report shall be reported on the schedule specified in this permit, and no later than ten days after any exceedance of any applicable rule, regulation, or other restriction.
- e) Every report submitted shall be certified by the responsible official, except that, if a report of a deviation must be submitted within ten days after the deviation, the report may be submitted without a certification if the report is resubmitted with an appropriate certification within ten days after that, together with any corrected or supplemental information required concerning the deviation.
- f) The permittee may request confidential treatment of information submitted in any report of deviation.

10 CSR 10-6.065 §(5)(C)1 and §(6)(C)1.D Risk Management Plan Under Section 112(r)

If the installation is required to develop and register a risk management plan pursuant to Section 112(R) of the Act, the permittee will verify that it has complied with the requirement to register the plan.

10 CSR 10-6.065(5)(C)1.A General Requirements

- 1) The permittee must comply with all of the terms and conditions of this permit. Any noncompliance with a permit condition constitutes a violation and is grounds for enforcement action, permit termination, permit revocation and re-issuance, permit modification or denial of a permit renewal application.
- 2) The permittee may not use as a defense in an enforcement action that it would have been necessary for the permittee to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit
- 3) The permit may be modified, revoked, reopened, reissued or terminated for cause. Except as provided for minor permit modifications, the filing of an application or request for a permit modification, revocation and reissuance, or termination, or the filing of a notification of planned changes or anticipated noncompliance, does not stay any permit condition.
- 4) This permit does not convey any property rights of any sort, nor grant any exclusive privilege.
- 5) The permittee shall furnish to the Air Pollution Control Program, upon receipt of a written request and within a reasonable time, any information that the Air Pollution Control Program reasonably may require to determine whether cause exists for modifying, reopening, reissuing or revoking the permit or to determine compliance with the permit. Upon request, the permittee also shall furnish to the Air Pollution Control Program copies of records required to be kept by the permittee. The permittee may make a claim of confidentiality for any information or records submitted under this rule.
- 6) Failure to comply with the limitations and conditions that qualify the installation for an Intermediate permit make the installation subject to the provisions of 10 CSR 10-6.065(6) and enforcement action for operating without a valid part 70 operating permit.

10 CSR 10-6.065(5)(C)1.C Reasonably Anticipated Operating Scenarios

None.

10 CSR 10-6.065, §(5)(B)4; §(5)(C)1, §(6)(C)3.B; and §(6)(C)3.D; and §(5)(C)3 and §(6)(C)3.E.(I) – (III) and (V) – (VI) Compliance Requirements

- 1) Any document (including reports) required to be submitted under this permit shall contain a certification signed by the responsible official.
- 2) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow authorized officials of the Missouri Department of Natural Resources, or their authorized agents, to perform the following (subject to the installation's right to seek confidential treatment of information submitted to, or obtained by, the Air Pollution Control Program):
 - a) Enter upon the premises where a permitted installation is located or an emissions-related activity is conducted, or where records must be kept under the conditions of this permit;
 - b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
 - c) Inspect, at reasonable times and using reasonable safety practices, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
 - d) As authorized by the Missouri Air Conservation Law, Chapter 643, RSMo or the Act, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the terms of this permit, and all applicable requirements as outlined in this permit.
- 3) All progress reports required under an applicable schedule of compliance shall be submitted semiannually (or more frequently if specified in the applicable requirement). These progress reports shall contain the following:
 - a) Dates for achieving the activities, milestones or compliance required in the schedule of compliance, and dates when these activities, milestones or compliance were achieved, and
 - b) An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventative or corrective measures adopted.
- 4) The permittee shall submit an annual certification that it is in compliance with all of the federally enforceable terms and conditions contained in this permit, including emissions limitations, standards, or work practices. These certifications shall be submitted annually by April 1st, unless the applicable requirement specifies more frequent submission. These certifications shall be submitted to the Air Pollution Control Program, Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, or AirComplianceReporting@dnr.mo.gov. All deviations and exceedances must be included in the compliance certifications. The compliance certification shall include the following:
 - a) The identification of each term or condition of the permit that is the basis of the certification;
 - b) The current compliance status, as shown by monitoring data and other information reasonably available to the installation;
 - c) Whether compliance was continuous or intermittent;
 - d) The method(s) used for determining the compliance status of the installation, both currently and over the reporting period; and
 - e) Such other facts as the Air Pollution Control Program will require in order to determine the compliance status of this installation.

10 CSR 10-6.065, §(5)(C)1 and §(6)(C)7 Emergency Provisions

- 1) An emergency or upset as defined in 10 CSR 10-6.065(6)(C)7.A shall constitute an affirmative defense to an enforcement action brought for noncompliance with technology-based emissions limitations. To establish an emergency- or upset-based defense, the permittee must demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence, the following:
 - a) That an emergency or upset occurred and that the permittee can identify the source of the emergency or upset,
 - b) That the installation was being operated properly,
 - c) That the permittee took all reasonable steps to minimize emissions that exceeded technology-based emissions limitations or requirements in this permit, and
 - d) That the permittee submitted notice of the emergency to the Air Pollution Control Program within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and any corrective actions taken.
- 2) Be aware that an emergency or upset shall not include noncompliance caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

10 CSR 10-6.065(5)(C)5 Off-Permit Changes

- 1) Except as noted below, the permittee may make any change in its permitted installation's operations, activities or emissions that is not addressed in, constrained by or prohibited by this permit without obtaining a permit revision. Off-permit changes shall be subject to the following requirements and restrictions:
 - a) The change must meet all applicable requirements of the Act and may not violate any existing permit term or condition; the permittee may not change a permitted installation without a permit revision if this change is a Title I modification; Please Note: Changes at the installation which affect the emission limitation(s) classifying the installation as an intermediate source (add additional equipment to the record keeping requirements, increase the emissions above major source level) do not qualify for off-permit changes.
 - b) The permittee must provide contemporaneous written notice of the change to the Air Pollution Control Program, Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, or AirComplianceReporting@dnr.mo.gov, as well as EPA Region VII, 11201 Renner Blvd., Lenexa, KS 66219. This written notice shall describe each change, including the date, any change in emissions, pollutants emitted and any applicable requirement that would apply as a result of the change; and
 - c) The permittee shall keep a record describing all changes made at the installation that result in emissions of a regulated air pollutant subject to an applicable requirement and the emissions resulting from these changes.

10 CSR 10-6.020(2)(R)34 Responsible Official

The application utilized in the preparation of this permit was signed by Matthew Schwent, President. If this person terminates employment, or is reassigned different duties such that a different person becomes the responsible person to represent and bind the installation in environmental permitting affairs, the owner or operator of this air contaminant source shall notify the Director of the Air Pollution Control Program of the change. Said notification shall be in writing and shall be submitted within 30 days of the change. The notification shall include the name and title of the new person assigned by the source owner or operator to represent and bind the installation in environmental permitting affairs. All

representations, agreement to terms and conditions and covenants made by the former responsible person that were used in the establishment of limiting permit conditions on this permit will continue to be binding on the installation until such time that a revision to this permit is obtained that would change said representations, agreements and covenants.

10 CSR 10-6.065 §(5)(E)4 and §(6)(E)6.A(III)(a)-(c) Reopening-Permit for Cause

This permit may be reopened for cause if:

- 1) The Missouri Department of Natural Resources (MoDNR) or EPA determines that the permit contains a material mistake or that inaccurate statements were made which resulted in establishing the emissions limitation standards or other terms of the permit,
- 2) Additional applicable requirements under the Act become applicable to the installation; however, reopening on this ground is not required if—:
 - a) The permit has a remaining term of less than three years;
 - b) The effective date of the requirement is later than the date on which the permit is due to expire;
or
 - c) The additional applicable requirements are implemented in a general permit that is applicable to the installation and the installation receives authorization for coverage under that general permit,
- 3) MoDNR or EPA determines that the permit must be reopened and revised to assure compliance with applicable requirements.

10 CSR 10-6.065 §(5)(E)1.A and §(6)(E)1.C Statement of Basis

This permit is accompanied by a statement setting forth the legal and factual basis for the permit conditions (including references to applicable statutory or regulatory provisions). This Statement of Basis, while referenced by the permit, is not an actual part of the permit.

VI. Attachments

Attachments follow.

The Permittee shall use the following Emission Factors and Emission Calculations methods to determine the VOC and HAP(s) emissions:

1. Fill Lines and Loading Racks:

Monthly Emissions (lbs) = 12.46 x Saturation Factor (top fill, submerged load/fill clean vessel) x Actual monthly throughput of material (1,000 gallons) x Vapor Pressure of material (psia) x Molecular Weight of material (lb/lb-mole) / Temperature (°R)

Note:

- The factors for calculating emissions from Fill Lines (F01, F02, F03, F04 and F05) and Loading Racks (L1, L2 and L3) were derived using the loading loss equation (Eq. 1) from EPA document AP-42, Compilation of Air Pollutant Emission Factors, Fifth Edition, Section 5.2 “Transportation and Marketing of Petroleum Liquids” (July 2008).
- The Molecular Weight of material shall be obtained from MSDS.

2. Storage Tanks:

Emissions from Storage Tanks shall be calculated using data from the installations most recent EIQ.

STATEMENT OF BASIS

Voluntary Limitations

In order to qualify for this Intermediate State Operating Permit, the permittee has accepted voluntary, federally enforceable emission limitations. Per 10 CSR 10-6.065(5)(C)1.A.(VI), if these limitations are exceeded, the installation immediately becomes subject to 10 CSR 10-6.065(6) and enforcement action for operating without a valid part 70 operating permit. It is the permittee’s responsibility to monitor emission levels and apply for a part 70 operating permit far enough in advance to avoid this situation. This may mean applying more than eighteen months in advance of the exceedance, since it can take that long or longer to obtain a part 70 operating permit.

INSTALLATION DESCRIPTION

Chemisphere Corporation is a chemical distribution facility that receives and ships chemicals for customers. The equipment at the installation includes various storage tanks, blending tanks, container filling operations, rail unloading racks, and truck loading/unloading racks.

The installation has the potential to be a major source for volatile organic compounds (VOCs) and hazardous air pollutants (HAPs). However, the installation, in their Intermediate Operating Permit application, is voluntarily limiting the plant wide emissions to less than 100 tons per year for VOCs, less than 10 tons per year for each HAP, and less than 25 tons per year for total HAPs, on a 12 month rolling average.

This installation is located in the City of St. Louis, a nonattainment area for the eight hour ozone standard and the PM_{2.5} standard and an attainment area for all other criteria pollutants. This installation is not on the List of Named Installations found in 10 CSR 10-6.020(3)(B), Table 2.

Updated Potential to Emit (PTE) for the Installation and Reported Air Pollutant Emissions, tons per year

Pollutants	Potential to Emit	2016	2015	2014	2013	2012
Particulate Matter ≤ Ten Microns (PM ₁₀)	0.54	—	—	—	—	—
Particulate Matter ≤ 2.5 Microns (PM _{2.5})	0.05	—	—	—	—	—
Volatile Organic Compounds(VOC)	< 100	9.78	9.78	9.78	9.89	9.89
Hazardous Air Pollutants (HAP's)	< 10/25	7.78	7.78	7.78	6.59	6.59

Note:

1. PM₁₀ and PM_{2.5} PTE calculations are drawn from data in the Missouri Emissions Inventory System from the emission year 2014.
2. VOC and HAPs PTE – Represents the potential emissions based on federally enforceable emission limitations of VOC of Permit Condition PW001, individual/ aggregate HAPs of Permit Conditions PW002. These limits keep the potential to emit below major levels, thus allowing the facility to obtain this Intermediate Operating Permit.

Permit Reference Documents

These documents were relied upon in the preparation of the operating permit. Because they are not incorporated by reference, they are not an official part of the operating permit.

- 1) Intermediate Operating Permit Application, received December 19, 2016;
- 2) Intermediate Operating Permit OP2012-019 and OP2012-019A
- 3) 2014 Emissions Inventory Questionnaire, received April 9, 2015;
- 4) U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*; Volume I, Stationary Point and Area Sources, Fifth Edition;
- 5) Air Pollution Control Program Construction Permits and Permit Determinations:

Project Number	Description
AP201211007	Determination of permit need for the installation of four 30,000 gallon storage tanks (R67, R68, R69 and R70) that will contain acetone. Acetone is not considered VOC because of its known lack of participation in the atmospheric reactions to produce ozone. No construction permit is required.
AP201212010	Determination of permit need for a change in contents in a 30,000 gallon storage tank. The tank (R68) originally contained acetone and now will change to Calumet 420-060. Calumet 420-060 is a petroleum distillate of 99.95% VOC, no HAPs. The VOC net emissions increase (0.007 tons per year) is below the deminimis levels, and according to 10 CSR 10-6.060, the change is exempt and no construction permit is required.
AP201302072	Determinations of permit need to replace two existing 4,000 gallon storage tanks with two new 6,500 gallon pressurize tanks (R41 and R42). The tanks are horizontal and will store methylene Chloride (CAS 75-09-2). Methylene chloride is a HAP and the potential emissions would be 2.03 tons per year (0.46 pounds per hour). This is less than the exemption level in 10 CSR 10-6.061, Construction Permit Exemptions (3)(A)3.B (i.e. 0.5 pounds per hour) and no construction permit is required.
AP201305021	Construction Permit No. 102013-010. A Section (5) permit issued on October 15, 2013 for the installation of a two (2) 35,000 gallon ethanol storage tanks (R73 and R74).
AP201308049	Determination of permit need for the installation of one 10,000 gallon storage tank (R71) that will contain Calumet 300-360, and one 35,000 gallon storage tank (R75) will contain acetone. Calumet 300-360 is a petroleum distillate of 99.95% VOC, no HAPs. The VOC net emissions increase (0.017 tons per year) is below the deminimis levels, and according to 10 CSR 10-6.060, the change is exempt and no construction permit is required.
AP201402037	Determination of permit need for a change in contents in a 10,000 gallon storage tank (R71). The tank (R71) originally contained Calumet 300-360 and now will change to methyl acetate which is VOC exempt and the change does not increase the potential to emit of any other air pollutant. No construction permit required.

Project Number	Description
AP201405027	Determination of permit need for the installation of one 5,000 gallon water storage tanks (R47) and one 300 gallon mobile ethyl acetate mixing tank (K22). According to Missouri State Rule 10 CSR 10 6.061, Construction Permit Exemptions, no construction permit is required.
AP201407064	Determination of permit need for the installation of one 7,700 gallon vertical mix tank (K22). According to Missouri State Rule 10 CSR 10 6.061, Construction Permit Exemptions, no construction permit is required.
AP201612001	Determination of permit need for the installation of two 35,000 gallon (each) vertical mix tanks (R76 & R77). According to Missouri State Rule 10 CSR 10 6.061, Construction Permit Exemptions, no construction permit is required.

6) City of St Louis Air Pollution Control Program Construction Permits and Source Registration Permits:

Permit Number	Description
95-05-061	Nine Chemical Storage Tanks
97-02-014	A Chemical Tank Used to Store Ethanol
97-08-086	Two Chemical Storage Tanks
06-03-005	Three Mixing Tanks and Three Filling Lines
07-12-030	Three Mixing Tanks and Three Filling Lines
SR08.049	Three 17,000-gal Stainless Steel, Vertical Cylindrical Exterior Storage Tanks
SR12.008	K21 Interior 600 gallon Mix Tank

Applicable Requirements Included in the Operating Permit but Not in the Application or Previous Operating Permits

None

Other Air Regulations Determined Not to Apply to the Operating Permit

The Air Pollution Control Program (APCP) has determined that the following requirements are not applicable to this installation at this time for the reasons stated.

1) 10 CSR 10-5.500, *Control of Emissions from Volatile Organic Liquid Storage*.

The provisions of this rule shall apply to all storage containers of volatile organic liquid (VOL) with a maximum true vapor pressure of one-half pound per square inch (0.5 psia) or greater in any stationary tank, reservoir or other container of forty thousand (40,000) gallon capacity or greater.

This rule is not applicable because Chemisphere does not store volatile organic liquid in tanks equal to or greater than 40,000 gallons in capacity.

2) 10 CSR 10-6.220, *Restriction of Emission of Visible Air Contaminants*

The emission units at the installation do not emit particulate matter or other condensibles which would reduce the transmission of light or obscure the view of an object in the background. Since the significant emission units at this installation are VOC/HAP emitting sources, we have elected not to require the permittee to conduct monitoring of opacity.

Construction Permit History

The following revisions were made to construction permits for this installation:

- 1) The construction permits issued to Chemisphere Corporation by the City of St. Louis APCP required the installation to report emissions yearly on the Emissions Inventory Questionnaire. Since the emission reporting [10 CSR 10-6.110, *Submission of Emission Data, Emission Fees and Process Information*] is the requirements of this Intermediate permit and included in the core permit requirements section of this permit, the yearly emissions reporting conditions of the construction permits are not included in the operating permit.

New Source Performance Standards (NSPS) Applicability

40 CFR Part 60, Subpart K – *Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification commenced After June 11, 1973*

40 CFR Part 60, Subpart Ka, *Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification commenced After May 18, 1978, and Prior to July 23, 1984*

40 CFR Part 60, Subpart Kb, *Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984.*

The following storage tanks are below the level of reporting significance (Subpart K & Ka – 40,000 gallons and Subpart Kb – 19,812.9 gallons or the material being stored does not meet the definition of petroleum liquids according to 40 CFR Part 60, Subpart Ka and therefore are not subject to 40 CFR Part 60 Subpart Ka or Kb):

Description	Capacity (Gallon)
R54 - Gallon Mineral Spirits Storage Tank	1,000
R56 - Petroleum Distillate Storage Tank	3,400
R57 - Petroleum Distillate Storage Tank	3,400
K08 – Mixing Tank	4,600
K15 – Mixing Tank	6,000
K16 – Mixing Tank	6,000
K17 – Mixing Tank	5,500
K19 – Mixing Tank	7,800
K20 – Mixing Tank	7,800s
K21 – Mix Tank	600
R01 through R09 – 9 Storage Tanks (constructed prior to 1984)	20,000 (each)
R15 through R22 – 8 Storage Tanks	10,000 (each)
R28 and R29 – 2 Storage Tanks	1,000 (each)
R40 – Storage Tank	6,000
R41 and R42 – 2 Storage Tanks	4,000 (each)
R63 through R65 – 3 Storage Tanks	17,000 (each)
R71 –Methyl Acetate Storage Tank	10,000
K04 – Mix Tank	1,400
K05 and K06 – 2 Mix Tanks	660 (each)
K07 – Mix Tank	55
K12 – Mix Tank	1,900
K14, K24 and K25 – 3 Mix Tanks	1,000 (each)
K22 – Mobile Ethyl Acetate Mixing Tank	300
K23 –Mixing Tank	1,850

The following storage tanks are not subject to the requirements of Subpart Kb. This subpart does not apply to storage vessels with a capacity greater than or equal to 151 m³ (39,890 gallons) storing a liquid with a maximum true vapor pressure less than 3.5 kilopascals (kPa) (26.25 mmHg) or with a capacity greater than or equal to 75 m³ (19,812.9 gallons) but less than 151 m³ storing a liquid with a maximum true vapor pressure less than 15.0 kPa (112.51 mmHg). The true vapor pressures of the materials being stored are less than 15.0 kPa. [§60.110b (b)]

Description	Capacity (gallons)	Solvent Vapor Pressure (kPa)
R44 – Ethanol Storage Tank	39,000	11.71 (87.8 mmHg)
R58 – Ethanol Storage Tank	39,700	11.71 (87.8 mmHg)
R60 – Aromatic 100 Storage Tank	39,700	<1.33 (<10 mmHg)
R68 - Calumet 420-060.	30,000	0.029 (0.22 mmHg)
R73 and R74 – Ethanol Storage Tanks	35,000 (each)	11.71 (87.8 mmHg)
R76 - Calumet 195-208 Storage Tank	35,000	<15 (<112.51 mmHg)
R77 - Methanol (CAS# 67-56-1) Storage Tank	35,000	<15 (<112.51 mmHg)

The following storage tanks contain non-regulated materials.

Description	Capacity (Gallon)
R11 – Acetone Storage Tank	30,000
R12 – Acetone Storage Tank	30,000
R47 – Water Storage Tank	5,000
R59 - Acetone Storage Tank	30,000
R61 - Acetone Storage Tank	30,000
R62 - Acetone Storage Tank	30,000
R67, R69 and R70 – 3 Acetone Storage Tanks	30,000
R72 - Acetone Storage Tank	35,000
R75 - Acetone Storage Tank	35,000
R78 - Water Storage Tank	6,000

Maximum Achievable Control Technology (MACT) Applicability

There are no MACT standards that are currently applicable to this installation.

National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability

40 CFR Part 61 Subpart M – *National Emission Standard for Asbestos.*

The installation is not subject to any NESHAP standard with the exception of Subpart M - National Emission Standard for Asbestos. The installation is potentially subject to Subpart M. If the installation conducts any demolition or renovation projects to a building(s) containing asbestos, they must determine applicability with the following NESHAP regulations:

- Demolition and Renovation - 40 CFR 61.145
- Waste Disposal for Manufacturing, Fabricating, Demolition, Renovation, and Spraying - 40 CFR 61.150

Other Regulations Not Cited in the Operating Permit or the Above Statement of Basis

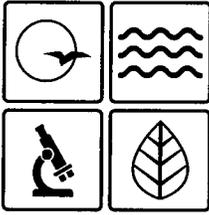
Any regulation which is not specifically listed in either the Operating Permit or in the above Statement of Basis does not appear, based on this review, to be an applicable requirement for this installation for one or more of the following reasons.

- 1) The specific pollutant regulated by that rule is not emitted by the installation.
- 2) The installation is not in the source category regulated by that rule.
- 3) The installation is not in the county or specific area that is regulated under the authority of that rule.
- 4) The installation does not contain the type of emission unit which is regulated by that rule.
- 5) The rule is only for administrative purposes.

Should a later determination conclude that the installation is subject to one or more of the regulations cited in this Statement of Basis or other regulations which were not cited, the installation shall determine and demonstrate, to the Air Pollution Control Program's satisfaction, the installation's compliance with that regulation(s). If the installation is not in compliance with a regulation which was not previously cited, the installation shall submit to the APCP a schedule for achieving compliance for that regulation(s).

Response to Public Comments

The draft Intermediate Operating Permit for Chemisphere Corporation was placed on public notice as of October 20, 2017 for a 30-day comment period. The public notice was published on the Department of Natural Resources' Air Pollution Control Program's web page at: <http://dnr.mo.gov/env/apcp/permit-public-notices.htm> on Friday, October 20, 2017. The Air Pollution Control Program did not receive any public comments during the 30-day comment period.



Missouri Department of dnr.mo.gov

NATURAL RESOURCES

Eric R. Greitens, Governor

Carol S. Comer, Director

DEC 14 2017

Mr. Matthew Schwent
Chemisphere Corporation
2101 Clifton Avenue
St. Louis, MO 63139

Re: Chemisphere Corporation, 510-0808
Intermediate Operating Permit
Permit Number: OP2017-098

Dear Mr. Schwent:

Enclosed with this letter is your intermediate operating permit. Please review this document carefully. Operation of your installation in accordance with the rules and regulations cited in this document is necessary for continued compliance. It is very important that you read and understand the requirements contained in your permit.

This permit may include requirements with which you may not be familiar. If you would like the department to meet with you to discuss how to understand and satisfy the requirements contained in this permit, an appointment referred to as a Compliance Assistance Visit (CAV) can be set up with you. To request a CAV, please contact your local regional office or fill out an online request. The regional office contact information can be found at <http://dnr.mo.gov/regions/>. The online CAV request can be found at <http://dnr.mo.gov/cav/compliance.htm>.

You may appeal this permit to the Administrative Hearing Commission (AHC), P.O. Box 1557, Jefferson City, MO 65102, as provided in RSMo 643.078.16 and 621.250.3. If you choose to appeal, you must file a petition with the AHC within thirty (30) days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If you send your appeal by registered or certified mail, we will deem it filed on the date you mailed it. If you send your appeal by a method other than registered or certified mail, we will deem it filed on the date the AHC receives it.

If you have any questions or need additional information regarding this permit, please do not hesitate to contact Berhanu Getahun at the St. Louis Regional Office, 7545 S. Lindbergh, Suite 210, St. Louis, MO 63125, or by telephone at (314) 416-2960. You may also contact me with the Department's Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102, or by telephone at (573) 751-4817. Thank you for your time and attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Michael J. Stansfield, P.E.
Operating Permit Unit Chief

MJS:bgj

Enclosures

c: PAMS File: 2016-12-034



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